

REMARKS

Claims 1-3, 5-9, 10-14, and 16-28 are pending in the Application. By this Amendment, Applicant has amended claims 1, 6, 22, 23, and 26-28 and added new claims 37-43.

Applicant requests reexamination and reconsideration of the application, as amended, and in light of the references listed in the Information Disclosure Statement filed concurrently herewith.

In the Office Action, claims 1, 6, 22, 23 and 26-28 stand rejected under 35 USC §112, first paragraph because there allegedly is no teaching that the silicon is to be considered at least a channel. Applicant respectfully submits that the amendment of these claims overcomes this rejection.

Claims 1, 6, 22, 23, and 26-28 have been amended by deleting "to become at least a channel forming region" in the first step of the claims and adding "to form a crystalline semiconductor island to become at least a channel forming region" in the last step of the claims. By etching the peripheral portion of the patterned semiconductor film after the crystallization step, a crystalline semiconductor island to become at least a channel formation region is formed.

Applicant submits that no new matter is added by the amendment of these claims, support being found, among other

places, on page 13, lines 7-11, page 14, lines 11-15, and FIGS. 1A through 1E.

Claims 1-3, 5-8, 10-14, and 16-28 stand rejected over claims 1-18 of U.S. Patent No. 5,580,792 under the doctrine of obviousness-type double patenting. Applicant respectfully traverses this rejection.

U.S. Patent No. 5,580,792 etches the surface of the crystallized silicon film using catalytic material. The U.S. Patent No. 5,580,792 explains that excessive portions of the catalytic materials tend to be deposited on the surface, and the surface is cleaned by the etching to decrease leakage current and improve the sub threshold characteristics. However, U.S. Patent No. 5,580,792 does not suggest preventing lumping of catalytic material from being formed in the silicon film. Also, the U.S. Patent No. 5,580,792 does not suggest preventing the dispersion of characteristics of the thin-film transistor.

Contrary to this, the present invention as claimed in independent claims 1, 6, 22, 23, 27, and 28 as amended can prevent a lump of crystallization promoting material from being formed in the semiconductor island to become at least a channel forming region, to prevent dispersion of characteristics of the thin-film transistor. Also, the present invention as claimed in independent claim 26 as amended can prevent a lump of

crystallization promoting material from being formed in the semiconductor film to become at least a channel forming region, to prevent dispersion of characteristics of the thin-film transistor. Also, the present invention as claimed in independent claims 11, 21, 24 and 25 can prevent lump of crystallization promoting material from being formed in the active region, to prevent dispersion of characteristics of the thin-film transistor.

Accordingly, the obviousness-type double patenting rejection of claims 1-3, 5-8, 10-14, and 16-28 should be withdrawn in the next Office Action.

Claims 1-3, 5-8, 10-14, and 16-28 stand rejected under 35 USC §103(a) as being unpatentable over Nakajima in view of Gibson. In the Office Action, it is further explained that the certified English translation of the foreign priority document submitted to the Patent Office does not mention the silicon being at least a channel. Applicant submits that the amendment of claims 1, 6, 22, 23, and 26-28 overcomes this rejection.

The above claims 1, 6, 22, 23, and 26-28 as amended do not claim the silicon being at least a channel any longer. Instead, a crystalline semiconductor island to become at least a channel forming region is formed by etching the peripheral portion of the patterned semiconductor film after the crystallization.

Applicant submits that this limitation is supported by the certified English translation of the foreign priority document.

Because the claims 1, 6, 22, 23, and 26-28 as amended are supported by the certified English translation of the foreign priority document, the rejection of claims 1-3, 5-8, 10-14, and 16-28 under 35 USC §103(a) is overcome because the reference to Nakajima has a U.S. filing date of September 8, 1995, which is later than the filing date August 2, 1995, of the Japanese priority application No. 7-216608 of the subject application.

Finally, claims 1-3, 5-8, 10-14, and 16-28 stand rejected by U.S. Patent No. 5,580,792 under 35 U.S.C. §103(a). Applicant respectfully traverses this rejection.

The U.S. Patent No. 5,580,792 etches the surface of the crystallized silicon film using catalytic material. Further, it explains that excessive portions of the catalytic materials tend to be deposited on the surface, and the surface is cleaned by the etching to decrease leakage current and improve the sub threshold characteristics. However, the U.S. Patent No. 5,580,792 does not suggest preventing lump of catalytic material from being formed in the silicon film. Also, the U.S. Patent No. 5,580,792 does not suggest preventing the dispersion of characteristics of the thin-film transistor.

Contrary to this, the present invention as claimed in independent claims 1, 6, 22, 23, 27, and 28 as amended can prevent a lump of crystallization promoting material from being formed in the semiconductor island to become at least a channel forming region, to prevent dispersion of characteristics of the thin-film transistor. Also, the present invention as claimed in independent claim 26 in accordance with the enclosure of this letter can prevent lump of crystallization promoting material from being formed in the semiconductor film to become at least a channel forming region, to prevent dispersion of characteristics of the thin-film transistor. Also, the present invention as claimed in independent claims 12, 21, 24 and 25 can prevent lump of crystallization promoting material from being formed in the active region, to prevent dispersion of characteristics of the thin-film transistor.

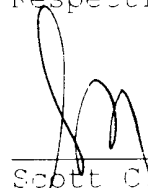
Accordingly, the rejection of these claims under 35 USC §103(a) should be withdrawn in the next Office Action.

For the reasons stated above, Applicant submits that all of the claims are now in condition for allowance, and requests a prompt notice to that effect. Enclosed is a check in payment of the excess claims fees required by the amendments and the two

month extension of time. Please apply any other charges not covered or any credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 7/17/00



Scott C. Harris
Reg. No. 32,030

PTO Customer No. 20985
Fish & Richardson P.C.
4350 La Jolla Village Drive, Suite 500
San Diego, CA 92122
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

10043155.doc